

IN THE CLAIMS

Claims 1, 11, 33 and 39 have been amended. New claims 40-50 have been added.

1. (currently amended) A method of achieving a therapeutic effect comprising:
delivering a particle containing a therapeutic substance and a disintegrant to an anatomical structure comprising a lumen such that said particle forms an embolus within said lumen for a transitory period, said transitory period being less than seven days and less than the duration which results in cell damage or cell death; and
wherein said therapeutic substance is released from said particle, causing said therapeutic effect.
2. (previously presented) The method of Claim 1, wherein said anatomical structure has a first region and a second region branching from said first region, said second region being located downstream from said first region, and wherein said delivering a particle to an anatomical structure comprises the acts of:
occluding said first region at a position downstream of the location at which said second region branches from said first region; and
introducing said particle into said first region upstream of the location at which said second region branches from said first region.
3. (previously presented) The method of Claim 1, wherein said anatomical structure has a first region and a second region branching from said first region, said second region being located downstream from said first region, and wherein said delivering a particle to an anatomical structure comprises the acts of:
occluding said first region at positions both upstream and downstream of the location at which said second region branches from said first region; and

introducing said particle into said first region between the upstream and downstream occlusions.

4. (previously presented) The method of Claim 1, wherein said lumen contains an occlusion therein and wherein said delivering a particle to an anatomical structure comprises the act of:

introducing said particle into said lumen upstream of said occlusion.

5. (original) The method of Claim 4, wherein said therapeutic substance is an angiogenic substance and wherein said therapeutic effect is collateral growth upstream of said occlusion.

6. (original) The method of Claim 1, wherein said particle reduces in size as said therapeutic substance is released therefrom.

Claims 7-10 (canceled).

7. (currently amended) A method of achieving a therapeutic effect comprising delivering a particle comprised of a ~~biodegradable substance~~disintegrant and a therapeutic substance to an anatomical structure including a lumen, said particle having a first diameter sufficient to form an embolus within said lumen at a first site; wherein said ~~biodegradable substance~~disintegrant is capable of degrading causing said particle to degrade within said lumen to a second diameter smaller than the diameter of said lumen at said first site in less than seven days to release said particle from said first site to mitigate or prevent cellular damage at said first site.

8. 12. (previously presented) The method of Claim 11, wherein delivering said particle to said anatomical structure comprises the act of delivering pulses of said particles to said anatomical structure.

9 12. (previously presented) The method of Claim 12, wherein the act of delivering pulses of said particles causes a series of brief periods of reduced blood flow thereby causing collateral growth at said first site.

Claims 14-20 (canceled).

10 21. (previously presented) A method of achieving a therapeutic effect within an anatomical structure having a first region and a second region, said second region being located downstream of said first region and having a smaller cross-sectional diameter than said first region, the method comprising:

delivering a particle having a first size in which said particle is not capable of passing from said first region into said second region, said particle comprising a water soluble polymer and a hydrophobic counterion; and

wherein said particle subsequently reduces from said first size to a smaller second size as said particle travels through said anatomical structure, allowing said particle to pass into said second region.

11 22. (previously presented) The method of Claim 21, wherein said particle includes a therapeutic substance that is released from said particle in said anatomical structure.

Claim 23 (canceled).

12 24. (previously presented) The method of Claim 21, wherein said particle reduces from said first size to said smaller second size in a period of less than one week thereby mitigating or preventing cellular damage at said first site.

Rule 25
12a
Claim 26 (canceled).

13 26. (previously presented) The method of Claim 21, wherein during said act of traveling through said anatomical structure, said particle becomes transiently lodged in a plurality of locations throughout said anatomical structure as said particle reduces in size over a

period of less than one week, providing a therapeutic effect over a length of said anatomical structure.

14 ²⁷ Claim 28 (canceled). 10
14 ²⁸ ²⁹ (original) The method of Claim 21, wherein said anatomical structure comprises a single lumen containing said first region and said second region.

15 ²⁹ ³⁰ (original) The method of Claim 21, wherein said anatomical structure comprises a lumen network including a plurality of lumens. 10

16 ³⁰ ³¹ (original) The method of Claim 21, wherein said anatomical structure additionally includes a third region, said third region being located downstream of said second region and having a smaller cross-sectional diameter than said second region; wherein said particle is capable of reducing from said second size to a smaller third size, allowing said particle to pass from said second region into said third region.

17 ³¹ ³² (previously presented) A method of releasing a therapeutic substance in a lumen comprising delivering a particle comprised of a biodegradable compressed material and a therapeutic substance to a lumen, said particle having a first diameter sufficient to form an embolus within said lumen at a first site. 17

18 ³² ³³ (currently amended) The method of Claim 32, wherein said biodegradable substance is capable of degrading within said lumen to a second diameter smaller than the diameter of said lumen at said first site in less than seven days to release said particle from said first site thereby mitigating or preventing cellular damage at said first site.

19 ³³ ³⁴ (previously presented) A method of delivering a therapeutic substance to a lumen network, said lumen network having a plurality of branched lumens, said method comprising: occluding a portion of said lumen network; and

delivering a particle to a lumen in said lumen network upstream of said occlusion, the particle comprising a biodegradable substance, wherein said occlusion prevents said particle from entering said portion of said lumen network.

20 39. (previously presented) A method of delivering a biodegradable substance to a lumen network, the lumen network having a first region and a second region branching from said first region downstream from said first region, wherein said second region has a first branch and a second branch, said method comprising:

occluding said first branch of said second region; and

delivering a particle to said first region upstream of said occlusion, the particle comprising a biodegradable substance and having a first diameter sufficient to form an embolus within said second branch of said second region.

21 39. (previously presented) The method of Claim 35, additionally comprising occluding said first region, wherein said particle is delivered between the upstream and downstream occlusions.

22 39. (previously presented) The method of Claim 35, wherein said particle further comprises an angiogenic substance and wherein said angiogenic substance promotes collateral growth upstream of said occlusion.

23 39. (previously presented) The method of Claim 35, wherein said particle further comprises a therapeutic substance and wherein said particle releases said therapeutic substance as said particle degrades.

24 39. (currently amended) The method of Claim 35, wherein said biodegradable substance is capable of degrading within said second branch of said second region to a second diameter smaller than the diameter of said second branch in less than seven days to release said particle from said second branch thereby to mitigate or prevent cellular damage at said second branch.

Please add the following New Claims:

25 39
25 39 40. (new) A method of treatment, comprising delivering a particle to a lumen, said particle comprised of a substance and a disintegrant, said disintegrant allowing said particle to form multiple emboli at different periods of time within said lumen.

26 40
26 40 39 41. (new) The method of Claim 40, wherein said disintegrant is capable of causing said particle to degrade in less than seven days or for a duration of time that does not allow for cellular damage.

27 41
27 41 39 42. (new) The method of Claim 40, wherein said disintegrant is selected from the group consisting of croscarmellose, povidone, lactose, and mannose.

28 42
28 42 39 43. (new) The method of Claim 40, wherein said disintegrant is a hygroscopic substance.

29 43
29 43 44. (new) The method of Claim 40, wherein said substance is a therapeutic substance.

30 44
30 44 45. (new) The method of Claim 40, wherein said substance is a polymeric material.

31 45
31 45 46. (new) A method of releasing a therapeutic substance in a lumen comprising delivering a particle comprised of a biodegradable inorganic substance and a therapeutic substance to a lumen, said biodegradable inorganic substance allowing said particle to form multiple emboli at different periods of time within said lumen.

32 46
32 46 47. (new) The method of Claim 46, wherein said biodegradable inorganic substance is capable of causing said particle to degrade in less than seven days or for a duration of time that does not allow for cellular damage.

33 47
33 47 48. (new) The method of Claim 46, wherein said biodegradable inorganic substance is selected from the group consisting of hydroxyapatite, dahlite, brushite, calcium sulphate, octacalcium phosphate, amorphous calcium phosphate and beta-tricalcium phosphate.

34 49 (new) A method of releasing a therapeutic substance in a lumen comprising delivering a particle comprised of a surfactant and a therapeutic substance to a lumen, said particle having a first diameter sufficient to form an embolus with said lumen at a first site.

35 50 (new) The method of Claim 49, wherein said surfactant is selected from the group consisting of sorbitan monooleate, polyoxyethylene trioleate, and poly(ethylene oxide)-b-poly(propylene oxide)-b-poly(ethylene oxide) triblock copolymers.